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Body Limb Movement Limiter

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Allen

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(54) **BODY LIMB MOVEMENT LIMITER**

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(*) Notice: Subject to any disclaimer, the term of this patent is extended or adjusted under 35 U.S.C. 154(b) by 304 days.

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Related U.S. Application Data

(63) Continuation-in-part of application No. 09/992,611, filed on Nov. 19, 2001, now abandoned.

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(51) **Int. Cl.**
A61F 5/00 (2006.01)

(52) **U.S. Cl.** **602/20; 602/5; 602/19**

(58) **Field of Classification Search** **602/5, 602/19, 20, 26, 16; 128/869, 876, 878, 873, 128/874, 875; 473/450; 273/317.2**
See application file for complete search history.

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(57) **ABSTRACT**

A body limb movement limiter restrains the movement of a person's arm so as to protect the person's shoulder or restrains the movement of a person's lower leg with respect to the upper leg so as to protect the person's knee. The device uses a housing having a reel disposed therein with a tether attached thereto and a shear thickening non-Newtonian fluid disposed within the housing so that the fluid acts on the reel during a payout procedure of the tether. The housing is attached to a strap secured about the torso of the person while the free end of the tether is secured about the person's arm. Alternately, a pair of arms are pivotally secured to each other within a housing having the non-Newtonian fluid therein for limiting movement of one arm with respect to the other.

7 Claims, 7 Drawing Sheets

